| <b>Work Orde</b><br>Friday, February      |           |  |  |                                |                           |            |              |  |               |   | Page 1         |
|---|-----------|--|--|--------------------------------|---------------------------|------------|--------------|--|---------------|---|----------------|
| Revision ID:                              | D3238-21  |  | · A  | ccept                          |                           |            |              | s s  | Setup St      |   |                |
| Start Date: 2 Required Date: 2 Reference: | 2/18/2011 | Start Qty: 10.00<br>Req'd Qty: 10.00   | (484   144   444   446  <br>  1848   184   484   184 |                                | Cust Item II<br>Customer: | D:         |              | ·  | ÷             |   |                |
|   |           | n: MF                                  | Date://-02-/8  | Tooling:<br>SPC (Y/N):         |                           | te:<br>te: |              | · <b>R</b>   |               | *************************************** |                |
| Sequence ID/<br>Work Center ID            |           | Operation Description                  |  | Set Up/<br>Run Hours           | Tool ID                   | Tool#      | Plan<br>Code | Accept<br>Qty  | Reject<br>Qty | Reject<br>Number                        | Insp.<br>Stamp |
| Draw Nbr                                  | Revis     | sion Nbr                               |  |                                |                           |            |              |  |               |   |                |
| Waterjet FLOW CNC Waterjet                | -         | FLOW WATER JET Memo                    | D3238-23-25 MUST BE ISS                              | 0.00<br>0.00<br>SUED AND RAMAT | THE SAME                  |            | /            | A Company of the Comp | »(I - J.      | 99                                      |                |
| 110                                       | ,`·       | Dwg Rev:<br>Prog Rev:<br>2-Deburr if r | D3238 BLANK CUTTING F                                | 0.00                           |                           |            | 1            | Il projection  | This The      | only.                                   | i.il           |

0.00

Memo U.UU

Machine Serration on Sheet using DT8934 PLATE

Conventional Milling Machine

Friday, February 18, 2011 2:58:43 PM



Page 2

Item ID:

D3238-21

Accept



Date:

Setup Start

Stop



**Revision ID:** 

Item Name: Plate

Required Date: 2/23/2011

2/18/2011

QC:

**Start Qty: 10.00** 

Req'd Qty: 10.00



Date: \_\_\_\_\_

**Cust Item ID: Customer:** 

Reference:

**Start Date:** 

**Approvals:** 

Process Plan:

Date: **Tooling:** 

SPC (Y/N):

Set Up/

Run Hours.

Date:

Start Stop



Sequence ID/ Work Center ID

120

Quality Control

Operation Description

QC2- Inspect parts off machine FAI/FAIB

Tool ID

Tool # Plan Qty Code

Accept Reject Qty

1/1/11.02.22

Run

Reject Number Stamp

Insp.

130

Wateriet

FLOW CNC Waterjet

FLOW WATER JET

Memo

Memo

0.00

0.00

1-Cut as per Dwg D3238 □Dwg Rev: C□Prog Rev: C□Deburr if necessary □\*\*\*Use cutting file D3238-21-23-25\*\*\*\*\*\*\*

1B11-3-02

140

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

4311-2-27

### Work Order ID 66534

Friday, February 18, 2011 2:58:43 PM



Page 3

Item ID:

D3238-21

Accept



Setup Start

Stop



**Revision ID:** 

Item Name: Plate

**Start Date:** 2/18/2011 Required Date: 2/23/2011

**Start Qty: 10.00** 

Req'd Qty: 10.00



**Cust Item ID: Customer:** 

Reference:

Approvals:

Process Plan:

Date:

Date:

**Tooling:** 

SPC (Y/N):

Date:

Date:

Start Run

Stop

Sequence ID/

Work Center ID

150

Operation Description

QC8- Inspect parts - second check

Memo

Set Up/ **Run Hours** 

0.00

Sulvelor

Tool ID

Tool # Plan Code

Accept Reject Qty Qty

Reject Number

Insp. Stamp

Quality Control

160

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

0.00

10 1 M 1/02/27

170

Quality Control

QC3- Inspect Part Finish

Memo

Memo

0.00

10-bR 11-02-22

0.00

## Work Order ID 66534

Friday, February 18, 2011 2:58:43 PM



Page 4

Item ID:

D3238-21

Accept

Setup Start

Stop

**Revision ID:** 

Item Name:

Plate

**Start Oty:** 10.00 2/18/2011

Req'd Oty: 10.00

**Cust Item ID: Customer:** 

Reference:

Start Date:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start

Run



OC:

**Required Date: 2/23/2011** 

Memo

Memo

Date: SPC (Y/N): Date:

Tool ID

Stop



Sequence ID/ Work Center ID

180

Packaging

Packaging

Operation Description

Identify as per dwg & Stock Location: 42

Set Up/ **Run Hours** 

0.00

0.00

Tool # Plan Code Accept Qty

Reject Reject Otv

Insp. Number Stamp/

190

OC

Quality Control

OC21- Final Inspection - Work Order Release

0.00

0.00

NO2 (25 40)

## Picklist Print

Friday, February 18, 2011 2:58:40 PM

Work Order ID: 66534

Parent Item:

D3238-21

Parent Item Name: Plate



Start Date: 2/18/2011

Required Date: 2/23/2011

Page 1

**Start Qty: 10.00** 

Required Qty: 10.00

Comments:

IPP Rev:A New Issue 07-01-26 JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M2024T3S.080                    |                        | Purchased     | No          |                     | -                | 100             | sf                 | 84.7000        | 0.024       | 0.252632     |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |             | iR.          | 6-6-11        | 2              |        |

2024-T3 .080 sheet

| Location | Loc Oty | Loc Code |        |
|----------|---------|----------|--------|
| MAT      | 35      |          |        |
| 116604   | 35      |          |        |
| MAT22    | 49.7    |          |        |
| 104921   | 2       |          |        |
| 105411   | 7       |          |        |
| 109424   | 3       |          | 109242 |
| 110347   | 3       |          |        |
| 110908   | 2       |          |        |
| 112331   | 3       |          |        |
| 113796   | 9.7     |          |        |
| 114025   | 20      |          |        |

| DART AEROSPACE LTD             | Work Order:  | 66534       |
|--------------------------------|--------------|-------------|
| Description: PLATE             | Part Number: | D3938-51    |
| Inspection Dwg: D3938-31, Rev: |              | Page 1 of 1 |

# FIRST ARTICLE INSPECTION CHECKLIST

| X     | First Article | X   | Prototype | ! |
|-------|---------------|-----|-----------|---|
| <br>- | Actual        | . [ | 34.4      |   |

| Drawing<br>Dimension | Tolerance | Actual<br>Dimension | Accept | Rejest | Method of<br>Inspection | Comments |
|----------------------|-----------|---------------------|--------|--------|-------------------------|----------|
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| 1,96                 | 4 030     | 1.462               | 7      |        | V                       |          |
| 1.300                | 7 010     | 1.304               | 70     |        | ν                       |          |
| (33                  | 4 .030    | 338                 | 4      |        | V                       |          |
| 1,75                 | لاك . مكا | 1.752               | 8      |        | V                       |          |
| O2P,                 | 4 .010    | ,950                | 79     |        | V                       |          |
| ,40                  | 4 30      | -402                | 7      |        | r                       |          |
| 081                  | 7 00      | ્છ.                 | Ø      |        | 1                       |          |
| ,64                  | 71 .030   | .65                 | .0     |        | Y                       |          |
| ,075                 | 1.41      | 10%)                | >      |        | 1                       |          |
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| Measured by: | νΩ I   | Audited by: |         | Prototype Approval: |  |
|--------------|--------|-------------|---------|---------------------|--|
|              | _IP    |             |         | Date:               |  |
| Date:        | C6-6-H | Date:       | 11(0)72 | Duto.               |  |

| ſ   | Rev | Date : | Change    | Revised by | Approved |
|-----|-----|--------|-----------|------------|----------|
| L   | VEA | Date   | Onunge    | KJ/JLM     | 1        |
| - 1 | Α   |        | New Issue | NJ/JEIVI   | L        |

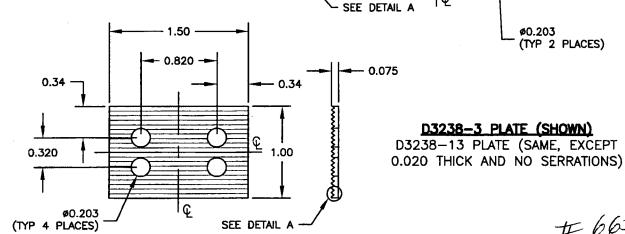


| DESIG | 4    | CB        | DART AEROSI<br>HAWKESBURY, ONTA        | •                           |
|-------|------|-----------|--|-----------------------------|
| CHEC  | (ED  | APPROVED, | DRAWING NO.                            | REV. C                      |
| (     |      | M         | D3238                                  | SHEET 1 OF 3                |
| DATE  |      |           | TITLE                                  | SCALE                       |
| 07.0  | 2.19 |           | PLATE                                  | 1:1                         |
| Α     |      | 03.11.25  | NEW ISSUE                              |                             |
| В     |      | 07.01.17  | ADD -21/-23/-25/-<br>CHANGE -11/-13/-1 | 31/-33/-35;<br>5 TO 6061-T6 |
| С     |      | 07.02.19  | ADD 5052-H32 OPTION                    | N                           |

OT.OL.W

0.075 - 0.34 - 0.34 - 0.35 - 0.36 - 0.36 - 0.020 THICK AND NO SERRATIONS)

Œ



# 66534

#### **NOTES:**

1) MATERIAL -1/-3/-5/-21/-23/-25 PLATE:

ALUMINUM 2024-T3 SHEET PER QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S)

-11/-13/-15/-31/-33/-35 PLATE:

ALUMINUM 6061-T6/-T62 SHEET, 0.020 THICK, PER QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.020)

ALUMINUM 5052-H32 SHEET, 0.020 THICK, PER QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32S.020)

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) SEE SHEET 3 FOR DETAIL A
- 7) PARTS ARE SYMMETRIC ABOUT &

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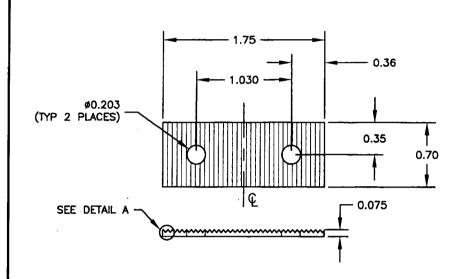
| Dart Ae | rospace L | _td               |                     | -       |        |            |                               |                       |
|---------|-----------|-------------------|---------------------|---------|--------|------------|-------------------------------|-----------------------|
| W/O:    |           | <del></del>       | WORK ORDER C        | HANGES  |        |            |                               | •                     |
| DATE    | STEP      | PRO               | OCEDURE CHANGE      |         | Ву     | Date C     | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
|         |           |                   |                     |         |        |            |                               |                       |
| =       |           |                   |                     |         |        |            |                               |                       |
|         |           |                   |                     |         |        |            |                               |                       |
| Part No | :         | PAR #:            | Fault Category:     | NCR:    | Yes 1  | No DQA: _  | Date: _                       | •                     |
|         | Res       | solution:         | Disposition:        | QA: N   | VC Clo | sed:       | Date: _                       |                       |
| NCR:    |           |                   | WORK ORDER NON-CONF | ORMANCE | (NCR)  |            |                               |                       |
| DATE    | STEP      | Description of NC | Corrective Action   |         | Sian & | Verificati | on Approval                   | Approval              |

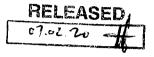
| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                               |                |           |           |              |  |  |
|------|------|----------------------------------|----------------------|-------------------------------|----------------|-----------|-----------|--------------|--|--|
|      |      | Description of NC                |                      | Corrective Action Section B   | Verification   | Approval  | Approval  |              |  |  |
| DATE | STEP | Section A                        | Initial<br>Chief Eng | Action Description  Chief Eng | Sign &<br>Date | Section C | Chief Eng | QC Inspector |  |  |
|      |      |                                  |                      |                               |                |           |           |              |  |  |
|      |      |                                  |                      |                               |                |           |           |              |  |  |
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NOTE: Date & initial all entries

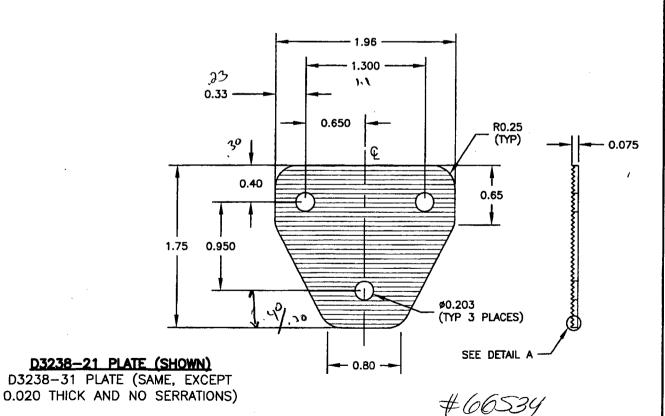


| DESIGN   | DRAWN BY    | I .         | ROSPACE LTD<br>RY, ONTARIO, CANADA |
|----------|-------------|-------------|------------------------------------|
| CHECKED  | APPROVED // | DRAWING NO. | REV. C                             |
| LE       | _#          | D3238       | SHEET 2 OF 3                       |
| DATE     |             | TITLE       | SCALE                              |
| 07.02.19 |             | PLATE       | 1:1                                |





D3238-5 PLATE (SHOWN) D3238-15 PLATE (SAME, EXCEPT 0.020 THICK AND NO SERRATIONS)



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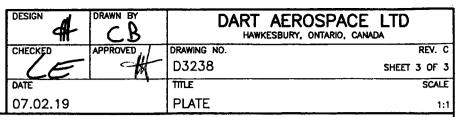
# **Dart Aerospace Ltd**

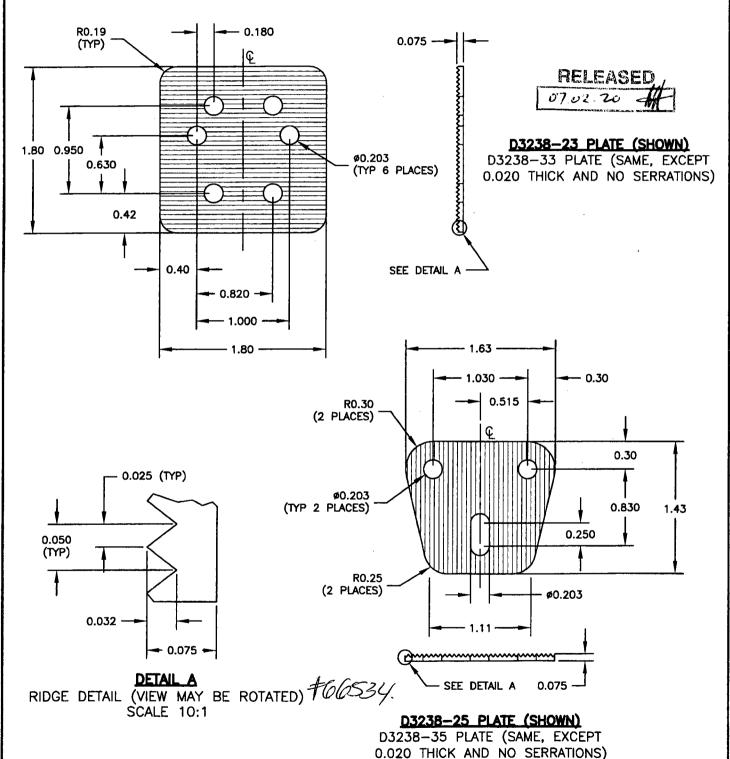
| W/O:    |            |            | WORK ORDER CHANGES |     |        |              |            |                                     |                          |
|---------|------------|------------|--------------------|-----|--------|--------------|------------|-------------------------------------|--------------------------|
| DATE    | STEP       |            | PROCEDURE CHANGE   |     | Ву     | Date         | Qty        | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|         |            |            |                    |     |        |              |            |                                     |                          |
|         |            |            |                    |     |        |              |            |                                     |                          |
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| Part No | ) <b>:</b> | PAR        | #: Fault Category: | NC  | R: Yes | No <b>DQ</b> | <b>A</b> : | Date: _                             |                          |
|         | D          | noolution. | Disposition        | 0.4 | NI/C C | locod:       |            | Data                                |                          |

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                              |                |              |                       |                          |  |
|------|------|----------------------------------|-----------------------------|------------------------------|----------------|--------------|-----------------------|--------------------------|--|
|      |      | Description of NC                | Corrective Action Section B |                              |                | Verification | Annroyal              | Annroyal                 |  |
| DATE | STEP | Section A                        | Initial<br>Chief Eng        | Action Description Chief Eng | Sign &<br>Date | Section C    | Approval<br>Chief Eng | Approval<br>QC Inspector |  |
|      |      |                                  |                             |                              |                |              |                       |                          |  |
|      |      |                                  |                             |                              |                |              |                       |                          |  |
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| W/O:    | -    |                                | WC                   | RK ORDER CHANGE              | ES             |                |                               | •                        |
|---------|------|--------------------------------|----------------------|------------------------------|----------------|----------------|-------------------------------|--------------------------|
| DATE    | STEP | PROCEDURE CHANGE               |                      |                              | Ву             | Date Qt        | Approval Chief Eng / Prod Mgr | Approval<br>QC Inspector |
|         |      |                                |                      |                              |                |                | 1 Tod Wigi                    |                          |
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| Part No | :    | PAR #:                         | Fault Cate           | gory:                        | NCR: Yes       | No <b>DQA:</b> | Date: _                       |                          |
|         |      | Disposition                    | QA: N/C Cld          | QA: N/C Closed: Date:        |                |                |                               |                          |
| NCR:    |      |                                | WORK ORDI            | ER NON-CONFORMA              | NCE (NCR       | )              |                               |                          |
| DATE    | STEP | Description of NC<br>Section A |                      | on B                         | Verification   |                | Approval                      |                          |
| DAIL    |      |                                | Initial<br>Chief Eng | Action Description Chief Eng | Sign &<br>Date | Section C      | Chief Eng                     | QC Inspector             |
|         |      |                                |                      |                              |                |                |                               |                          |
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NOTE: Date & initial all entries